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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,923	06/27/2003	Helmut Bentivoglio	SCH-00069	8651
7590	10/14/2004		EXAMINER	
Warn, Burgess & Hoffmann, P.C. P.O. Box 70098 Rochester Hills, MI 48307			NEGRON, ISMAEL	
			ART UNIT	PAPER NUMBER
			2875	

DATE MAILED: 10/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/607,923	BENTIVOGLIO ET AL.	
	Examiner Ismael Negron	Art Unit 2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 22 September 2003.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-10 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-10 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 22 September 2003 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20040123.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____.

DETAILED ACTION

Title

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: **Proximity Switch for Automotive Interior Mirror Module.**

Abstract

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc. The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

2. The abstract of the disclosure is objected to because it uses phrases which can be implied and refers to purported merits or speculative applications of the invention. Correction is required. See MPEP § 608.01(b).

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “40” has been used to designate both “*reading lamp*” (page 4, line 10) and “*evaluating electronics*” (page 4, line 16). In addition, note the following:

- reference character “21”, used to designate “*sensor*” (page 4, line 10) and “*proximity sensor*” (page 4, line 21);
- reference character “12”, used to designate “*mirror base*” (page 4, line 14) and “*lower left corner region*” (page 4, line 22); and
- reference character “25”, used to designate “*sensor*” (page 4, line 9) and “*capacitive proximity sensor*” (page 6, line 4).

The applicant is advised that the reference characters must be properly applied, with no single reference character being used for two different parts or for a given part and a modification of such part. See MPEP §608.01(g). Correction is required.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 4 (used in page 5, line 13).

5. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Applicant is further advised that this action only exemplifies the objections to the drawings, applicant's cooperation is requested in correcting all the occurrences of the cited, or any other errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 2 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by SCHULTZ (U.S. Pat. 5,880,538).

SCULTZ discloses a switching device having:

- **a housing (as recited in Claim 1), inherent;**
- **at least one sensor or sensor array (as recited in Claim 1), Figure 1, reference number 2;**
- **evaluation electronics (as recited in Claim 1), as seen in Figure 1;**
- **the electronics being located internal or external to the housing (as recited in Claim 1), inherent;**
- **the sensor initiating at least one switching process in combination with the electronics (as recited in Claim 1), column 2, lines 5-7;**
- **the switching process being based on the approach of a non-metallic object as a switching element (as recited in Claim 1), column 1, lines 53-59;**
- **the electronics generating an ON signal from a first approach (as recited in Claim 2), column 4, lines 47-59;**
- **the electronics generating an OFF signal from a second approach (as recited in Claim 2), column 4, lines 47-59;**
- **and**
- **the sensor being provided with a preferred directivity (as recited in Claim 6), inherent.**

Regarding the claimed switching device being used in an automotive interior mirror module, such recitation were considered to refer to the intended use of the claimed invention since such recitations failed to result in any structural difference between the claimed invention and the structure disclosed by SCHULTZ, and therefore fails to patentably distinguish the claimed invention from the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

7. Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by KASHIWAGI (U.S. Pat. 5,434,757).

KASHIWAGI discloses a switching device having:

- **a housing (as recited in Claim 8)**, Figure 7, reference number 21
- **at least one sensor or sensor array (as recited in Claim 8)**, Figure 8, reference numbers 50 or 60;
- **evaluation electronics (as recited in Claim 8)**, as seen in Figure 8;
- **the electronics being located internal or external to the housing (as recited in Claim 8)**, inherent;
- **the sensor initiating at least one switching process in combination with the electronics (as recited in Claim 8)**, column 4, lines 6-12; and

**the switching process being based on the force-free
touch of a non-metallic object as a switching element
(as recited in Claim 8), column 4, lines 13-18.**

Regarding the claimed switching device being used in an automotive interior mirror module, such recitation were considered to refer to the intended use of the claimed invention since such recitations failed to result in any structural difference between the claimed invention and the structure disclosed by KASHIWAGI, and therefore fails to patentably distinguish the claimed invention from the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 3-5, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over SCHULTZ (U.S. Pat. 5,880,538) and DESMOND et al. (U.S. Pat. 5,820,245).

SCULTZ discloses a switching device having:

a housing (as recited in Claim 1), inherent;

- **at least one sensor or sensor array (as recited in Claim 1), Figure 1, reference number 2;**
- **evaluation electronics (as recited in Claim 1), as seen in Figure 1;**
- **the electronics being located internal or external to the housing (as recited in Claim 1), inherent;**
- **the sensor initiating at least one switching process in combination with the electronics (as recited in Claim 1), column 2, lines 5-7;**
- **the switching process being based on the approach of a non-metallic object as a switching element (as recited in Claim 1), column 1, lines 53-59;**
- **the electronics generating an ON signal from a first approach (as recited in Claim 2), column 4, lines 47-59;**
- **the electronics generating an OFF signal from a second approach (as recited in Claim 2), column 4, lines 47-59;**
- **and**
- **the sensor being provided with a preferred directivity (as recited in Claim 6), inherent.**

SCULTZ discloses all the limitations of the claims, except:

- **an automotive interior mirror module (as recited in Claim 1);**
- **a reading lamp (as recited in Claim 3);**

- the lamp being integrated in the housing (as recited in Claim 3);
- the lamp being turned ON and OFF by the switching means (as recited in Claim 3);
- the mirror module having a mirror base (as recited in Claim 4);
- the housing being a mirror housing (as recited in Claim 5);
- the electronics being located inside the housing or the base (as recited in Claim 5);
- the sensor being located in a lower corner region of the housing facing a driver (as recited in Claim 9); and
- the sensor having at least ten times the size of a conventional mechanical button (as recited in Claim 10).

DESMOND et al. discloses a vehicle interior mirror module having :

- **a housing (as recited in Claim 1)**, Figure 4, reference number 11;
- **switching means (as recited in Claim 1)**, Figure 4, reference numbers 27 and 29;
- **the switching means being arranged in the housing (as recited in Claim 1)**, as seen in Figure 4;
- **a reading lamp (as recited in Claim 3)** , Figure 10, reference numbers 63 and 78;

- **the lamp being integrated in the housing (as recited in Claim 3), as seen in Figure 10;**
- **electronic circuit means to interconnect the lamp and the switching means (as recited in Claim 1), Figure 10, reference number 32;**
- **the lamp being turned ON and OFF by the switching means (as recited in Claim 3), column 4, lines 38-40;**
- **the mirror module having a mirror base (as recited in Claim 4), as seen in Figure 6;**
- **the housing being a mirror housing (as recited in Claim 5), column 3, lines 52-55;**
- **the electronics being located inside the housing or the base (as recited in Claim 5), as seen in Figure 10; and**
- **the switching means being located in a lower corner region of the housing facing a driver (as recited in Claim 9), Figure 1, reference number 27.**

It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to use the switching means of SCHULTZ in the vehicle interior mirror module of DESMOND et al. with means to switch the lamps ON and OFF without having to actually touch the module, as per the teachings of SCHULTZ.

Regarding the size of the sensor relative to the size of a conventional mechanical switch, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to have a sensor having at least ten times the size of a conventional mechanical button (as recited in Claim 10), since it has been held by the courts that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device, and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device. *In Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984),

Even if a sensor having the claimed size relative to that of a conventional mechanical switch were to perform differently than the prior art device, such difference would still be considered obvious since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only ordinary skill in the art. *In re Aller*, 105 USPQ 233.

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over SCHULTZ (U.S. Pat. 5,880,538) and DESMOND et al. (U.S. Pat. 5,820,245).

SCULTZ discloses a switching device having:

- **a housing (as recited in Claim 1)**, inherent;
- **at least one sensor or sensor array (as recited in Claim 1)**, Figure 1, reference number 2;
- **evaluation electronics (as recited in Claim 1)**, as seen in Figure 1;

the electronics being located internal or external to the housing (as recited in Claim 1), inherent;
the sensor initiating at least one switching process in combination with the electronics (as recited in Claim 1),
column 2, lines 5-7; and
the switching process being based on the approach of a non-metallic object as a switching element (as recited in Claim 1), column 1, lines 53-59.

SCULTZ discloses all the limitations of the claims, except the sensor array having a sensitivity adjustment for adjusting the length of the desired approach distance.

The examiner takes Official Notice that the use of sensitivity adjustment means in combination with sensors is old and well known in the illumination art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include such adjustment means in the system of SCHULTZ. One would have been motivated to provide such sensor with means to adjust its sensitivity in order to obtain a desired activation threshold.

Relevant Prior Art

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Schereiden (U.S. Pat. 4,305,021), **Millet** (U.S. Pat. 4,804,945), **Allison et al.** (U.S. Pat. 4,890,093), **Starnari** (U.S. Pat. 5,099,402), **Patrie** (U.S. Pat. 5,276,595), **Ness** (U.S. Pat. 5,763,872), **Adelmeyer et al.** (U.S. Pat. 5,996,383) and **Wnuk** (U.S. Pat. 6,774,505) disclose various illumination devices having proximity sensor means for activating a light source when a non-metallic object is within a predetermined distance from the sensor means.

Atkins (U.S. Pat. 3,382,408), **Lin** (U.S. Pat. 4,751,625) and **Diong et al.** (U.S. Pat. 5,489,891) disclose various illumination devices having sensor means for activating a light source when a non-metallic object contacts the sensor means.

Saphir (U.S. Pat. 4,433,328), **Wang** (U.S. Pat. 5,733,038) and **Hsu** (U.S. Pat. 5,814,945) various illumination devices having sensor means including means to adjust the sensitivity of a sensor in order to obtain a desired activation threshold.

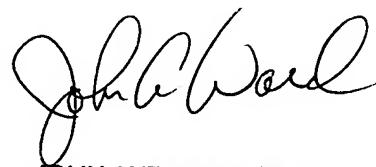
McElreath (U.S. Pat. 3,211,903), **Iacovelli** (U.S. Pat. 4,751,618), **Mittelhäuser** (U.S. Pat. 4,888,349) and **Suman** (U.S. Pat. 5,223,814) disclose vehicle interior mirror structures having illumination means.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ismael Negron whose telephone number is (571) 272-2376. The examiner can normally be reached on Monday-Friday from 9:00 A.M. to 6:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra L. O'Shea, can be reached on (571) 272-2378. The facsimile machine number for the Art Group is (703) 872-9306.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications maybe obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, go to <http://pair-direct.uspto.gov>. Should you have questions on access to Private PAIR system, contact the Electronic Business Center (EBC) toll-free at 866-217-9197.



**JOHN ANTHONY WARD
PRIMARY EXAMINER**

Inr

October 8, 2004